Remarks

Claims 1-10 are pending in the present application, each of which stands rejected in Office Action dated November 4, 2008. By this paper, Applicant amends claims 1, 2, and 5-9 and adds new claims 11-17. No new matter has been introduced by this Amendment. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

Indefiniteness Rejection

Claims 1-10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. (Office Action, p. 2.) The rejection of claim 1 is believed to be moot in light of the amendments contained herein. In that regard, claim 1 now recites "where N is an integer greater than or equal to two."

Applicant respectfully disagrees with the Office's indefiniteness contention with respect to claims 2-6, 8 and 9. Claims 2-6, 8 and 9 each claim N=2 and are certainly definite. Moreover, claiming N=2 in claims 2-6, 8 and 9 agrees with independent claim 1, which states that "N is an integer greater than or equal to two," since N=2 is merely a narrower limitation of N >= 2.

Regarding the rejection of claim 8 wherein the Office contends "it is unclear how the last packet is determined," this rejection is also believed to be moot in light of the amendments contained herein.

Anticipation Rejection

Claims 1, 7 and 10 stand rejected under 35 U.S.C. § 102(b) as be anticipated by U.S. Patent No. 5,995,506 (*"Fujimori"*). Applicant respectfully traverses this rejection in light of the amendments contained herein and the following remarks.

Regarding independent claim 1, *Fujimori* fails to disclose "preprocessing the data, at a sender's side, into *N types of packets* by virtue of *combining every N-th bit into one type* of the N types of packets, where *N is an integer greater than or equal to two*" and "sending the N types of packets to a receiver *independently of one another, with physical, spectral, and temporal separation via N networks*." Rather, *Fujimori* merely discloses a communication system for sending data over a single network. The data is formed into packets (*i.e.,* serially split) for transmission over the single network. While multiple packets may exist based upon the length of the data, *Fujimori* only discloses one packet type. Moreover, physical and spectral separation of a single group of packets sent over the single network is not possible, as even the Office concedes. Even the attribute information, which is associated with the data, is transmitted on the same network upon a request received from a data-receiving unit.

Accordingly, reconsideration and withdrawal of the rejection of claim 1 and associated dependent claims under 35 U.S.C. § 102(b) for at least the reasons set forth above is respectfully requested.

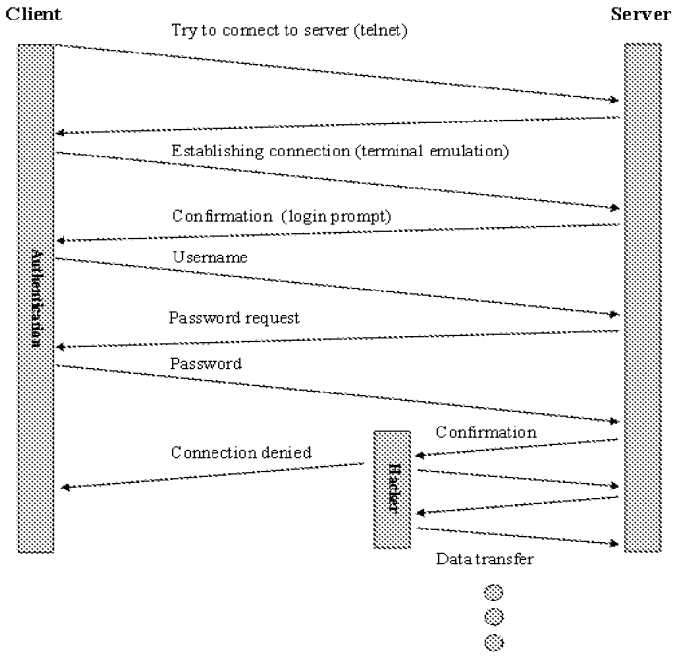
Obviousness Rejection

Claims 1, 2, 4-6 and 8-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Appl. Publ. No 2003/0115364 ("*Shu*") in view of U.S. Patent Appl. Publ. No 2003/0065656 ("*Torre*"). Applicant respectfully traverses this rejection because the proposed combination of references fails to teach or suggest each and every feature of the pending claims.

Regarding independent claim 1, neither *Shu* nor *Torre* teach or suggest the expressly recited feature of "sending the N types of packets to a receiver *independently of one another, with physical, spectral, and temporal separation via N networks*." Rather, *Shu* merely discloses a method in which the transmission of data occurs in a virtual private network. To heighten the security of the transmission, the data is provided with redundancy and broken up serially by encoding at the sender's end. Subsequently, the packets produced by this serial

splitting are relayed via multiple relay hosts over a corresponding number of pathways of a *single* network. The intent is to mask the actual traffic pattern of communications from hackers. Fewer than all of the packets are required to reconstitute the original message. The pathways share common nodes (domains) having one or more hosts, and each node has approximately the same number of direct links to the other nodes on the network. Thus, *Shu* does not disclose sending two or more packet types independently via two or more networks.

The figure below can help to demonstrate how hackers may "login" to a foreign computer system without knowing a password by waiting for a server to send a confirmation (bit sequence) to a client, reading the confirmation (even if the file is split), and entering the line as if the hacker is the client. The hacker may even send a "connection denied" message to the client to thwart suspicion.



The claims of the present application recite two or more networks, which provide two or more communication channels, using two different frequencies. *Shu* does not disclose sending the two or more packet types spectrally separated via the two or more networks. The

spectral separation of the packets, as recited in claim 1, involves the transmission of the different packet types on different carrier frequencies, i.e., the available spectrum (bandwidth) is used for the transmission. If a hacker taps one network line, the hacker may obtain only an unusable portion of the information. The hacker cannot obtain the remaining portion(s) within a useful time period because the remaining portion(s) are being transmitted on a separate network at a different frequency. *Shu* is silent as to this feature. Moreover, *Torre* fails to cure the deficiencies of *Shu*.

Accordingly, reconsideration and withdrawal of the rejection of claim 1 and associated dependent claims under 35 U.S.C. § 103(a) for at least the reasons set forth above is respectfully requested.

Regarding dependent claim 8, the claim recited the additional feature wherein "the two types of packets can be assembled at the receiver into an original message according to a message identification transmitted within a last packet of at least one of the two types of packets." The proposed combination fails to teach or suggest the aforementioned feature. Rather, *Shu* teaches away from this feature because *Shu* discloses adding redundancies to the data prior to splitting the data into packets so that any combination of *less than all* of the packets are required by the receiving host to reassemble the original message. Less than all of the packets means that a "last packet" is not necessarily required to reassemble the message. *Torre* fails to cure the deficiencies of *Shu*. Separate and consideration of the dependent claims is respectfully requested.

New Claims

New independent claims 11 and 15 include features substantially similar to claim 1. Accordingly, independent claims 11 and 15 and their respective dependent claims are allowable for at least the reasons set forth above with respect to claim 1. A notice to this effect is respectfully requested.

CONCLUSION

In view of the foregoing, Applicant respectfully submits that the rejected independent claim patentably defines the present invention over the citations of record. Further, the rejected dependent claims should also be allowable for the same reasons as their respective base claims and further due to the additional features that they recite. Separate and individual consideration of the dependent claims is respectfully requested.

Moreover, Applicant has made a genuine effort to respond to each of the Office's objections and rejections and advancing the prosecution of this case. Applicant believes that all formal and substantive requirements for patentability have been met and that these claims are in condition for allowance, which action is respectfully requested.

The Petition fee of $65 is being charged to Deposit Account No. 02-3978 via electronic authorization submitted concurrently herewith. The Commissioner is hereby authorized to charge any additional fees or credit any overpayments as a result of the filing of this paper to Deposit Account No. 02-3978.

Respectfully submitted,
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